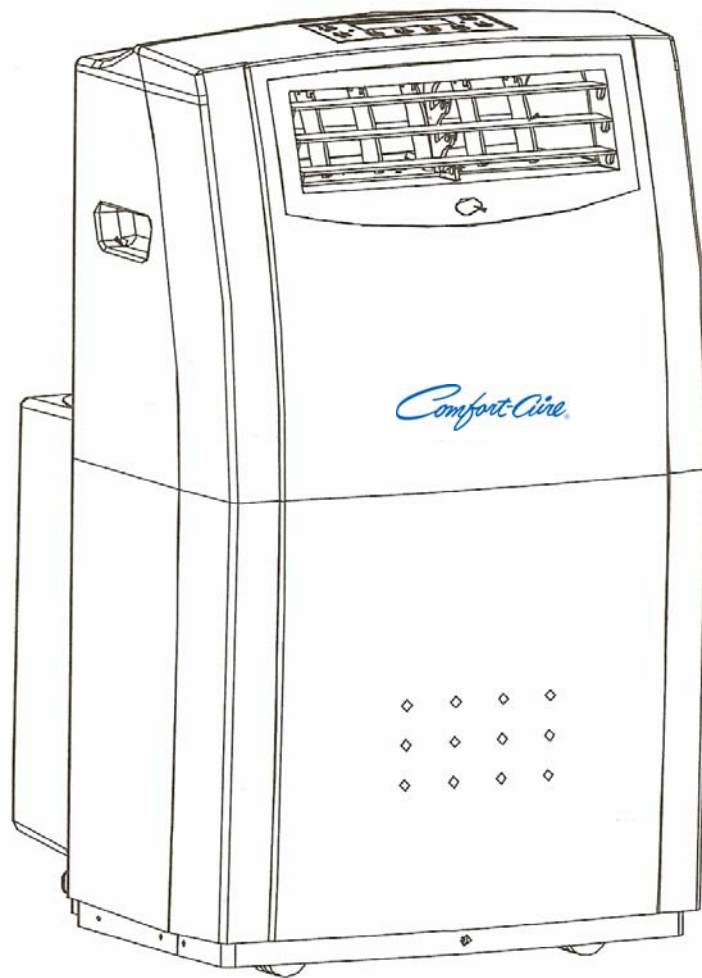


Comfort-Aire®

OWNER'S MANUAL
PORTABLE AIR CONDITIONER



Model: PE-91A
PE-121A

COOL - HEAT - DEHUMIDIFY

HEAT CONTROLLER, INC.

INDEX

PLEASE READ CAREFULLY. KEEP THIS INSTRUCTION MANUAL FOR FUTURE REFERENCE.

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1.

BEFORE USE

READ THIS ENTIRE INSTRUCTION MANUAL BEFORE USE

***Keep your ORIGINAL purchase
receipt.***

***Your receipt is your proof of
purchase and may be necessary
for warranty service.***

! ATTENTION !

This manual describes installation, operation, and maintenance of the portable air conditioner product.

If you need assistance, please call:

CUSTOMER SERVICE

1-517-787-2100

FOR FUTURE REFERENCE, PLEASE RECORD THE FOLLOWING:

Model No.: _____

Serial No.: _____

Date of Purchase: _____

2.

QUICK SET UP

Unpack the unit:

- Remove the foam cap.
- With two people, lift and remove the unit from the foam packing base without tilting the unit.
- Remove the plastic bag.

Check to see if unit is complete including all parts and accessories (Ref. Section 6, Parts & Accessories).

Test LCDI Plug. (Ref. Section 7, Safety Rules).

Place the unit UPRIGHT to allow the refrigerant and oil to stabilize. Wait 3 hours before using. (Ref. Section 7, Safety).

Attach air inlet and air outlet hose. Follow instructions per Section 8, Installation.

Plug the unit into a properly grounded 15 Amp, 115V AC, circuit. (Ref. Section 7, Safety Rules).

Follow Section 9, Operation to set preferred function mode. When Water-Full indicator illuminates, empty the residual condensate water. (Ref. Section 10, Drain Excess Condensate Water).

Handle your unit with care. Move it gently. Always keep air filter clean. Do not cover air inlet grid and air outlet grid.

3.

INTRODUCTION

This Portable Air Conditioner is designed for improving living and working comfort by adjusting the temperature and humidity in a room. Its mobility makes it easy to use in various rooms.

This unit is provided with one outside air inlet hose and one hot-air outlet hose to enhance cooling performance. This unit has an **Auto Restart** function. In case of power failure, the unit will restart in the last setting selected when power resumes.

To ensure the optimal efficiency of the air conditioner, keep doors and windows closed. In order to optimize the functioning of your air conditioner, close window coverings to minimize sun load in the room.

This unit has a three-minute compressor delay protection circuit

4.

SUGGESTIONS FOR USE

1. This unit is designed for use indoors only and is not intended for outdoor use.
2. Do not locate the unit where furniture or other objects can obstruct the cooling airflow on back or above unit.
3. Prevent any kink or sharp bend in the air inlet and hot-air outlet hoses.
4. Unit must always be used in an upright position.
5. After unpacking, place the unit upright to allow the refrigerant and oil to stabilize. Wait 3 hours before using.
6. Place the unit on the floor not on a table or other elevated surface.
7. Keep the filter clean.

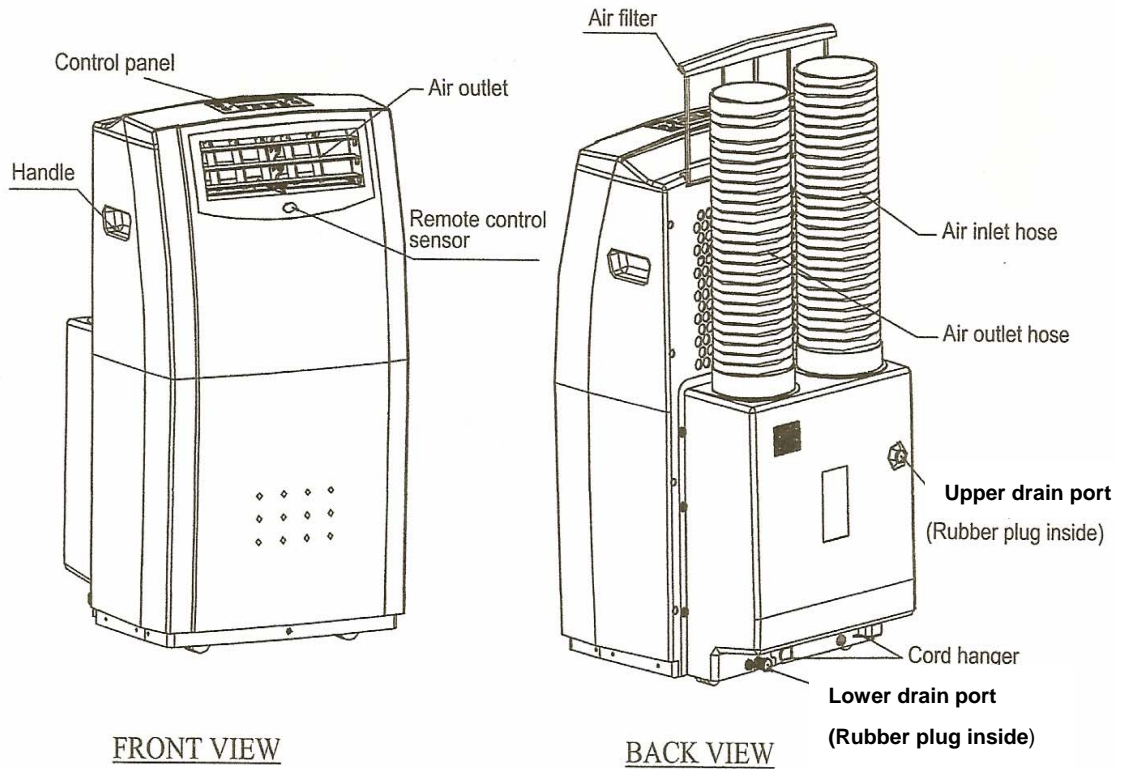
5.**SPECIFICATIONS**

	PE-91A / PE-121A
Electrical Supply	115V / 60 Hz
Cooling Capacity (BTUH)	9000 / 12000
Heating Capacity (BTUH)	3412 / 4265
Cooling Amps	10.0 / 11.5
Heating Amps	8.7 / 10.9
Dehumidifying Capacity (Pts/Hr)	2.5 / 2.8
Refrigerant	R22
Fan Speeds	Low / Med / Hi
Airflow (CFM)	210
Noise Level dB(A)	51 / 52
Net Weight (lb)	85.5 / 87.5
Product Dimension (in)	19.1(W) x 19.4(D) x 31.9(H)
Max. Length of Air Inlet and Outlet Hose (in)	71
Programming Timer (hr)	1 - 24

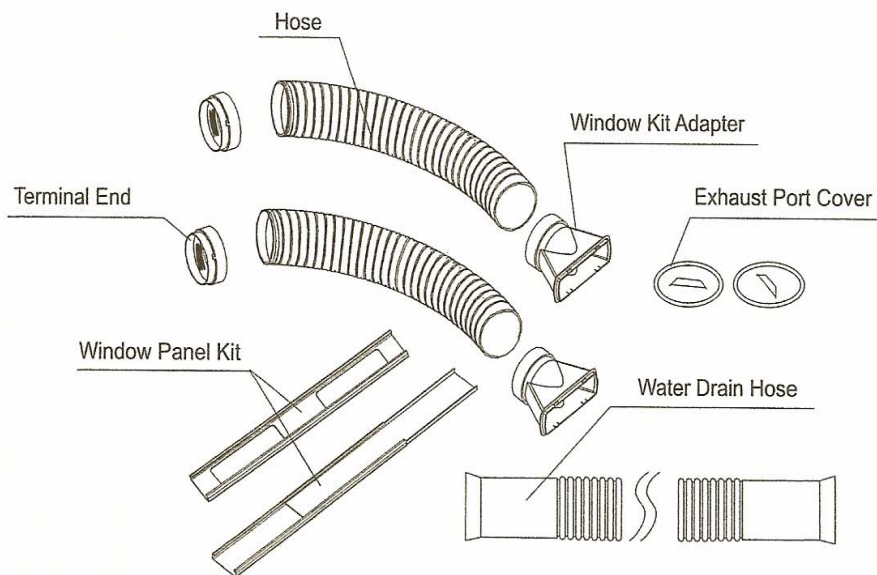
6.

PARTS & ACCESSORIES

PARTS



ACCESSORIES



7.

SAFETY

Connection to the main electrical supply must comply with local and national electrical codes.

1. Do not damage the power cord.
2. Never lay this unit down. Operate in upright position only.
3. Be sure that air inlets and outlets are not blocked or covered up.
4. Never place anything on top of the unit.
5. Do not use this product outdoors.
6. Never connect the unit to a defective outlet.
7. Plug the unit into a properly grounded 15 Amp, 115V AC circuit. Check your breaker box to determine which circuit the outlet is on. A dedicated circuit is recommended.
8. Make sure that the unit is correctly connected before turning on the unit.
9. Do not use the plug as a disconnecting means.
10. DO NOT USE AN EXTENSION CORD for this unit.
11. Do not use an adapter plug to a two slot outlet unless proper grounding of the outlet and/or ground wire is verified. Consult an Electrician.
12. Do not bend or crush the air inlet or air outlet hoses.
13. Do not allow children to play near the unit.
14. Do not place the power cord under a carpet.
15. Keep the area around the exhaust port/air inlet and air outlet hoses sufficiently clean and make sure that it is not congested.
16. For any repairs, refer directly to our Customer Service Department. Repairs carried out by unqualified people may cause damage or may even be dangerous and may void the warranty.

DO NOT:

- Place objects inside the air outlet or air inlet grid.
- Use this unit inside closets or cabinets.
- Repair, disassemble and/or modify the unit by yourself.
- Use this unit in proximity to flammable and/or explosive substances.
- Operate this unit without filter.

Before cleaning this unit, make sure that it is unplugged. Do not wash the unit with water, gasoline or solvents of any kind. (See Section 11).

To avoid the risk of shock, the product should never be used in bathrooms, shower rooms, or in any other steamy or wet areas.

Do not use the unit on a table as the unit is supported by wheels. Place unit on level floor.

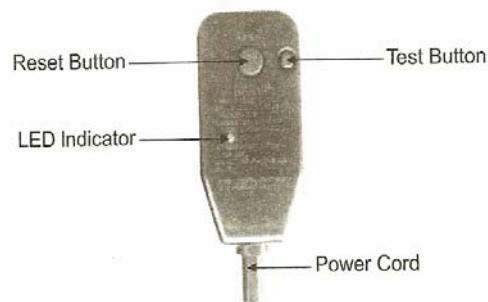
7.

SAFETY (*continued*)

This unit is provided with Leakage Current Detection and Interruption circuit (LCDI) built into the plug of the power supply cord. This device provides protection to reduce the risk of fire due to arcing faults in the power supply cord. Before use, follow the "Plug Testing Instructions" to ensure that the LCDI circuit functions properly.

PLUG TESTING INSTRUCTIONS:

1. Press Test Button.
It should trip.
2. Press Reset Button
firmly for use. Reset
Button may require
pressure to engage.



(Plug on unit may vary from picture.)

DO NOT USE IF ABOVE TEST FAILS

Do not use the TEST and RESET buttons as an on/off switch. They are only meant to be used for periodically checking the LCDI plug.

CALL CUSTOMER SERVICE IF TEST FAILS.

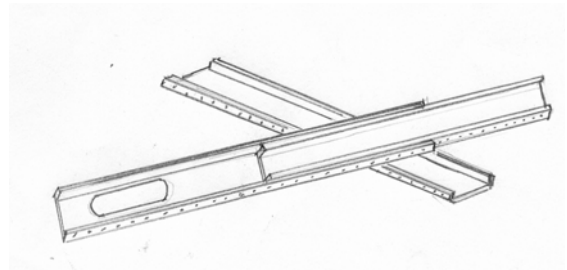
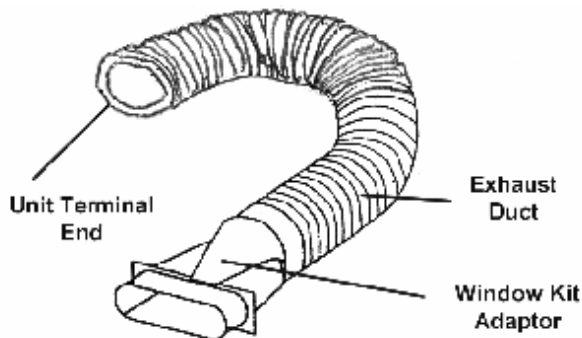
Replace defective cords only with genuine replacement parts from Heat Controller.

8.

INSTALLATION

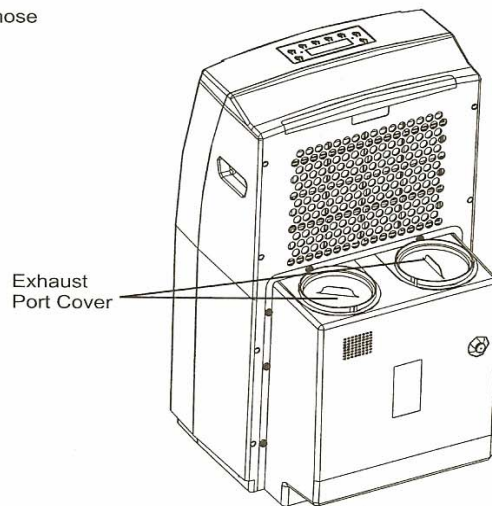
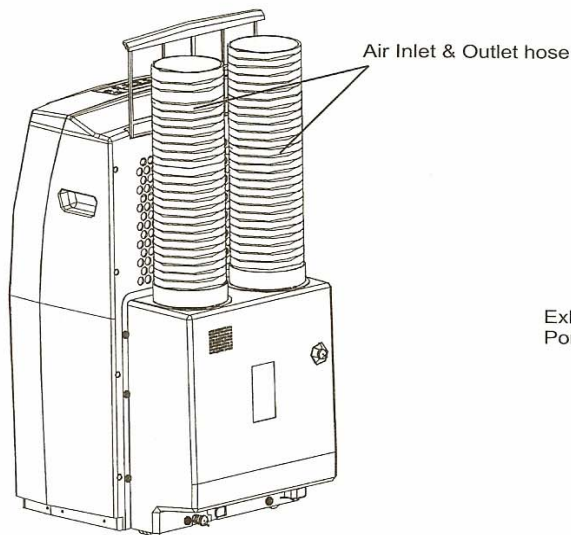
When this portable air conditioner operates in the cool mode, fresh outdoor air must be directed into the unit and hot air must be exhausted out of the room to complete heat exchange of the condenser. When the unit operates in FAN or HEAT mode, no outdoor air is used hence it is not necessary to complete window kit installation.

Installation Kit:



Air Inlet & Air Outlet Hose (2 sets)

Telescoping Window Panel Kit



Unit with Hoses Attached

Cover the Exhaust Port When Unit Not in Use

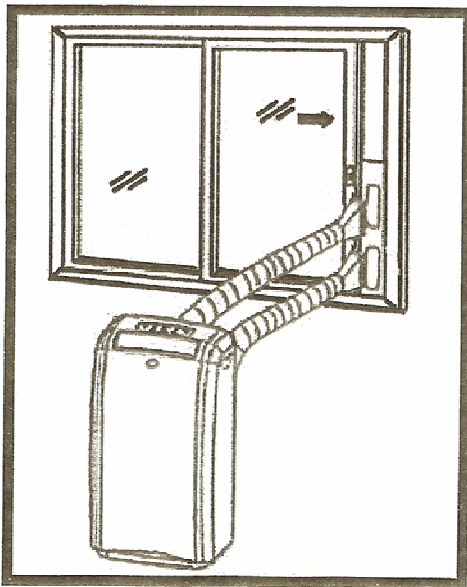
There are two exhaust ports at the back of the unit. Cover the exhaust ports when unit is not in use. To ready unit for installation, remove the exhaust port cover by turning in a counter-clockwise direction.

8.

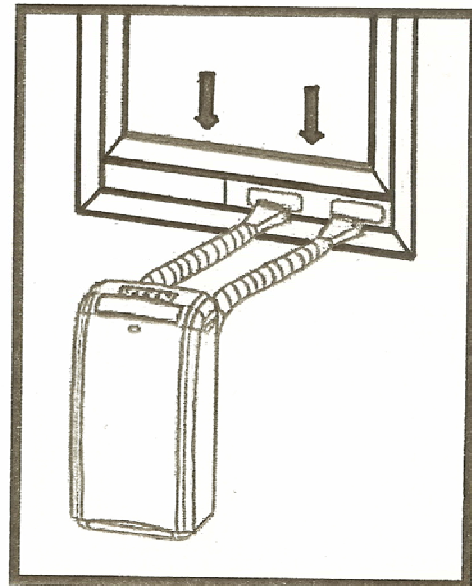
INSTALLATION

8.1 Installation Procedures

1. Measure the window the unit will be installed into and adjust the telescoping Window Panels to fit into the window. If window is either too wide or too tall, fill the remaining space with foam or other appropriate material. Make sure that the holes on the Window Panel are exposed for connection of Window Kit Adaptor.
2. Screw the hose clockwise into the Terminal End, and the other end of the hose to the Window Kit Adaptor. Apply same procedures to both air inlet hose and air outlet hose.
3. Secure the Terminal End to the Exhaust Port. Apply same procedures to both air inlet hose and air outlet hose.
4. Connect the Window Kit Adaptor to each of the holes on the Window Panel.



VERTICAL



HORIZONTAL

9.

OPERATION

9.1 Control Panel and Display

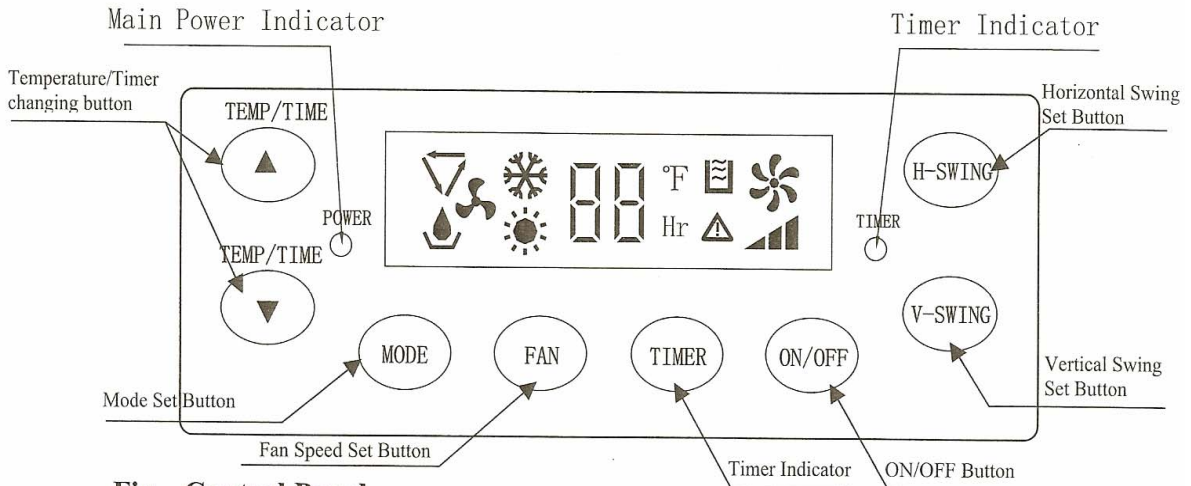











Fig. Control Panel



Fig. Display Panel

Signal on the display Panel

 — Auto Mode	°F — Fahrenheit Temperature
 — Dry Mode	Hr — Hours
 — Fan-only Mode	 — Water-Full Indicator
 — Cooling Mode	 — Error Indicator
 — Heating Mode	 — Indoor Fan mode
	 — Fan Speed

NOTE: To toggle the displayed temperature between °C and °F, press the ON/OFF button for approximately 20 seconds and then release. (The °F printed on the Control Panel will remain unchanged.)

9.

OPERATION

9.2 Remote Controller

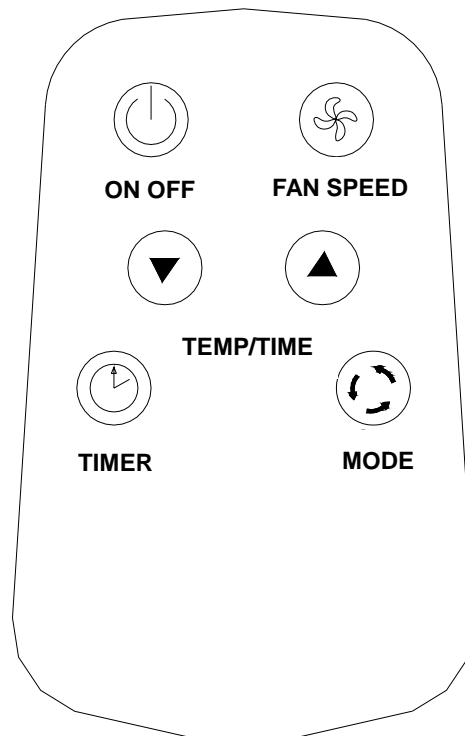


Fig. Remote Controller

The buttons on the Remote Controller perform the same functions as the equivalent button on the Control Panel.

The Remote Controller uses lithium battery Model CR2025. Install battery before using the Remote Controller.


9.

OPERATION

9.3 Auto, Cool, Heat, Dry, Fan Mode

You can operate the unit using the Control Panel on the unit, or with the Remote Controller.

Auto Mode:


1. Plug the Power Cord into the power outlet.
2. Turn on the unit by pressing the ON/OFF Button on the Control Panel.
3. Press the Mode Button until the signal  “ ” appears on the display.
4. Select the fan speed by using the FAN button.

During the AUTO mode, the unit will operate in HEAT mode when the room temperature is below 70°F.

The unit will operate in FAN only mode when the room temperature is between 70°F and 80°F.

The unit will operate in COOL mode when the room temperature is above 80°F.

Cool Mode:


1. Plug the Power Cord into the power outlet.
2. Turn on the unit by pressing the ON/OFF Button on the Control Panel.
3. Press the Mode Button until the signal  “ ” appears on the display.
4. Set the room temperature to your desired room temperature with Temperature Changing Button.
5. Set temperature range from 64°F to 90°F.
6. Recommended temperature for your comfort: is 82°F to 86°F.
7. Select fan speed by pressing the FAN Button.

9.

OPERATION

9.3 Auto, Cool, Heat, Dry, Fan Mode

Heat Mode:

1. Plug the Power Cord into the power outlet.
2. Turn on the unit by pressing the ON/OFF Button on the Control Panel.
3. Press the Mode Button until signal “” appears on the display.
4. Set the room temperature to your desired room temperature with Temperature Changing Button.


Then set temperature range from 60°F to 82°F.

We recommend temperature for your comfort between 69°F to 75°F.

5. Select the fan speed by pressing the Fan Speed Button. It is recommended to use a low fan setting.


The Heating Function is provided by an electric heat element. The compressor will not operate in HEAT Mode. It is not necessary to connect any of the exhaust hoses to the unit.

Dry Mode:

1. Plug the Power Cord into the power outlet.
2. Turn on the unit by pressing the ON/OFF Button on the Control Panel.
3. Press the Mode Button until the signal “” appears on the display.
4. Set the room temperature to your desired room temperature with temperature change button.
5. Keep the windows and the doors closed to aid the effectiveness.
6. The unit will only operate at low fan speed in Dry Mode. It is recommended not to install the exhaust hose for the best dehumidifying effect; however, the room may become too warm for comfort. In this case, the exhaust hose should be used.

NOTE: The unit will not perform dehumidifying when the room temperature is lower than 64°F.

Fan Only Mode:

1. Plug the Power Cord into the power outlet.
2. Turn on the unit by pressing the ON/OFF Button on the Control Panel.
3. Press the Mode Button until signal “” appears on the display.
4. Select the fan speed by pressing the Fan Speed Button.

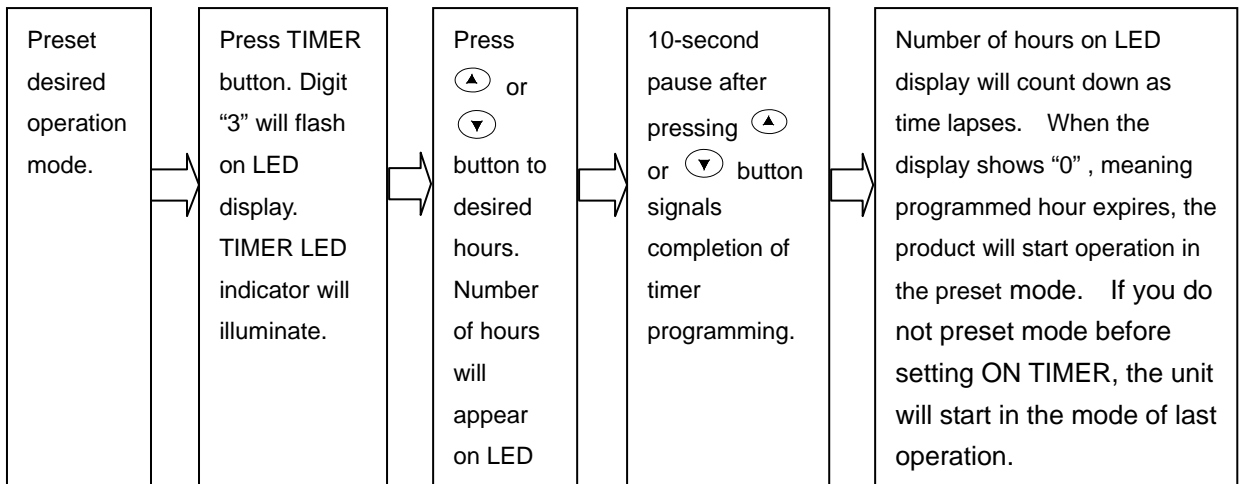
9.

OPERATION

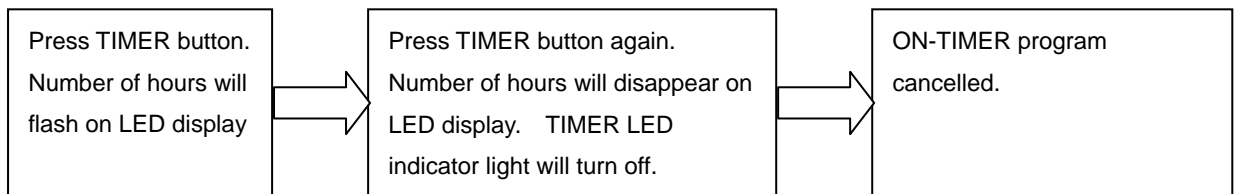
9.4 Timer Setting Procedure

ON-TIMER Program Setting:

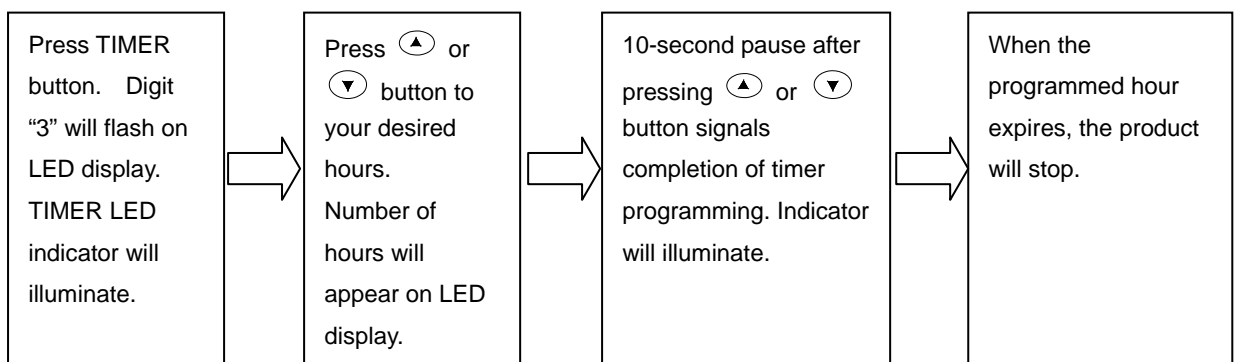
When the unit is OFF, you can program the ON TIMER to start the unit after desired number of hours. Procedure:



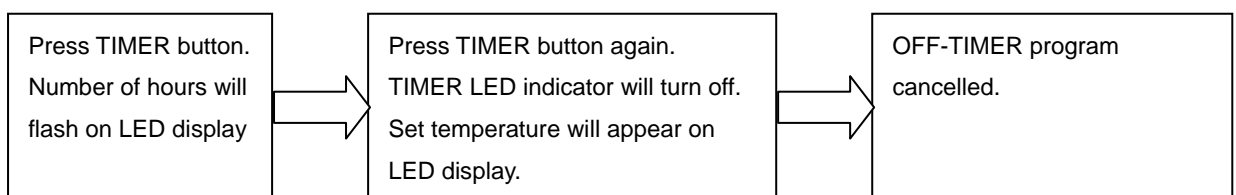
HOW TO CANCEL ON-TIMER Program Setting:



OFF-TIMER Program Setting:



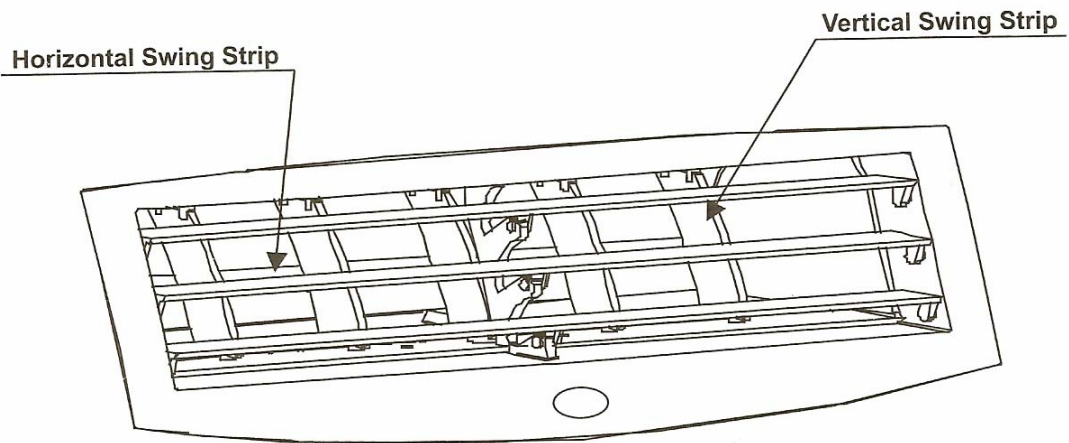
HOW TO CANCEL OFF-TIMER Program Setting:



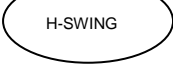
9.

OPERATION

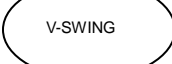
9.5 Air Flow Direction Control



Horizontal Swing Strip

Press  button. The horizontal swing strip controls the up-down air direction and will move up and down automatically. Release H-SWING button when the horizontal strip comes to your desired direction.

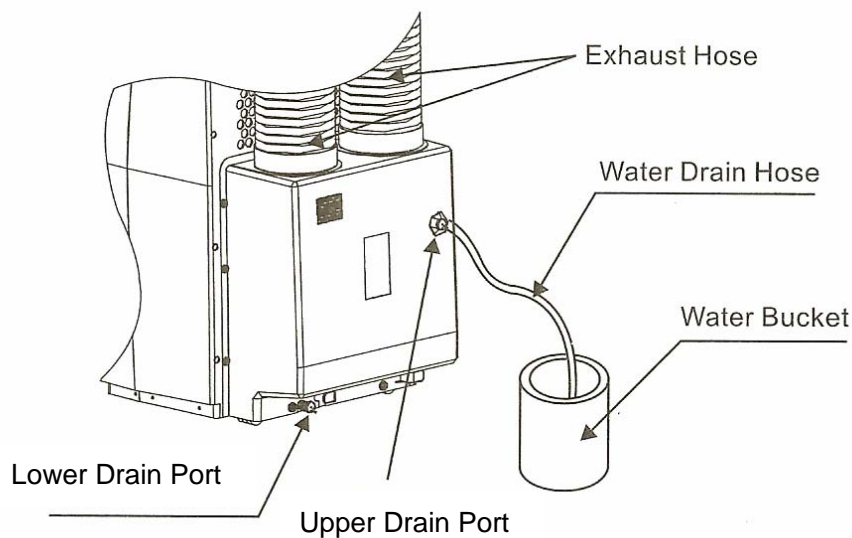
Vertical Swing Strip

Press  button once. The vertical strip controls left/right air direction and will swing left and right automatically. Press the V-SWING button again when the vertical strip comes to your desired direction, the vertical strip will stop.

10. DRAIN EXCESS CONDENSATE WATER

Condensate Disposal:

Under normal operating conditions, this unit is designed to dispose of condensate collected via an internal system that pumps water onto the hot condenser coil for re-evaporation. It is then expelled to the outdoors via the air outlet hose. If the unit is operated for prolonged periods during very high humidity conditions, this system may become overwhelmed and the unit will shut off. Excess water must be drained from the unit before it will restart.



Drain Water from Upper Drain Port:

Procedures: Connect the Water Drain Hose to the Upper Drain Port allowing water to flow to a water bucket. (See above illustration). Remember to reinstall the cap on Upper Drain Port after draining water. The Upper Drain Port can be used if a floor drain or some other means of disposing of condensate is not available.

Drain Water from Lower Drain Port: (Before Long Term Storage Only)

Procedures: Remove the Rubber Drain Plug on Lower Drain Port. Connect the Water Drain Hose to allow water to drain to a floor drain or other water outlet. Remember to reinstall the Rubber Drain Plug after draining water.

11.

MAINTENANCE

MAKE SURE POWER SUPPLY IS SWITCHED OFF AND THE PLUG IS PULLED OUT OF THE POWER OUTLET BEFORE ANY MAINTENANCE IS PERFORMED.

- Do not immerse the unit in water or other liquids.
- Do not pour liquids onto the unit.

Clean the Filter

If the filter is blocked with dust, the airflow volume will reduce and the cooling effect will be reduced.

- It is recommended to clean the filter once every two weeks or as needed.
- Remove the filter from the back of the unit by pulling straight up. Wash the filter gently with warm water (about 104°F.)
- Dry it thoroughly and then place it back into the product.
- Do not bend the filter.

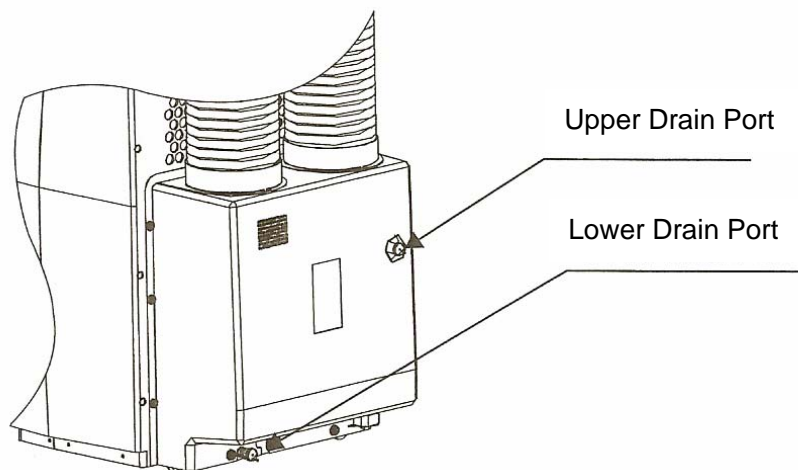
Clean Exterior Surface of the Unit

- Clean with a damp sponge.
- Dry it with a clean, soft cloth.
- Never use alcohol or any product containing solvents.

Long-Term Storage

At the end of the season, or when you do not plan to use the unit for an extended period of time, we recommend that you take the following steps:

1. Drain water from the lower drain port.
2. Clean the filter.
3. Store the power cord

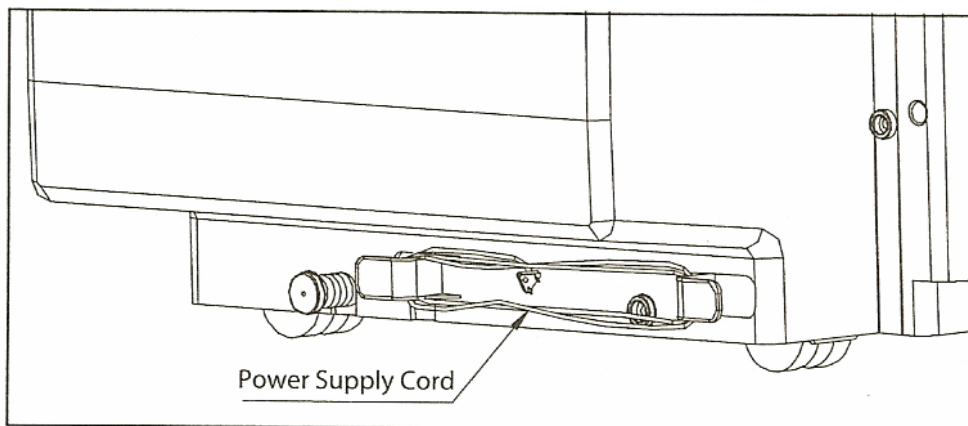


11.

MAINTENANCE


11.1 Storing the Power Cord

To avoid damage to the power cord when the unit is not in use, always store the power cord at the back of the unit in its original location (as shown in the figure below).



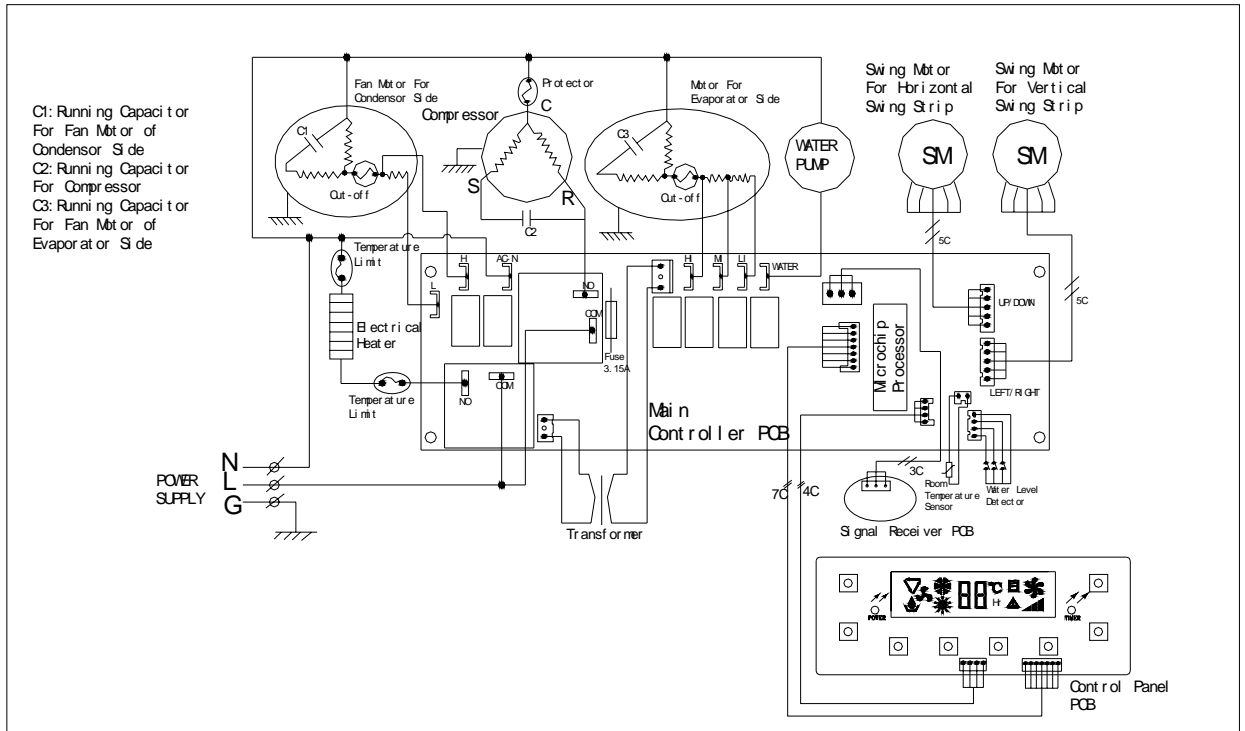
12.

TROUBLE SHOOTING

Problem	Cause	Solution
The unit doesn't run	Power failure or plug is not correctly inserted in the socket	Restore the power supply or reset LCDI
	Circuit breaker or line fuse has been tripped	Call your Electrician
	Power supply voltage is too low	Call your Electrician
The unit has only fan, no cooling even though it is in the cooling mode	The room temperature is not at working range	Check your room temperature
	The set temperature is too high	Re-set the temperature to a lower temperature
The unit seems to do little cooling or does not cool quickly	The filter is dirty and obstructed	Clean the filter
	Evaporator air is blocked	Remove the blockage
	The air intake and outlet ducts of the condenser side are obstructed	Check both of the ducts
	There is direct sunshine into room	Close the curtains or blinds
	The unit is set on dehumidifying mode	Set at cooling mode
	Set at low fan speed	Re-set the fan speed at high speed
The unit has worked for a long time, but the room is not cold enough	Windows or doors are open.	Close all of the windows and doors when the unit is working
	Too many people in the room	Turn on other cooling unit
	Something else in the room produces heat	Turn off these products
	The room is not well insulated, such as sunrooms, garages, attics, etc.	
Too noisy	The unit is not sitting evenly	Place the unit on an even surface
	The floor underneath the unit is uneven	Change the position
The unit stops cooling suddenly, only the fan works and the Water-Full indicator  display on the control pane is on	The environment is too wet and the condensate water in the unit is full	Empty the water inside the unit. Connect a pipe to the upper drain port (refer to drawing in PARTS Of Unit) at the back of the unit then restart the unit. Wait for approximately 1 hour to let condenser side fan blow out the water

13.

WIRING DIAGRAM



**Design, material, performance data and components
subject to change without notice.**

HEAT CONTROLLER, INC.

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THE QUALITY LEADER IN CONDITIONING AIR

www.heatcontroller.com